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CONTRIBUTED ARTICLES

Bee-Moth or Wax-Moth—Some Experiences.

BY C. THELMANN.

On page 723 (1897), Prof. A. J. Cook has kindly answered the questions I have asked him regarding the bee or wax moth, for which we tender him thanks. Some of the ways he describes about the moth are not yet clear to me, or don't agree with my experience and that of other bee-keepers. He says: We always find the moths lurking or flying about where there are combs, bee-hives with bees, empty hives or boxes with combs, etc. Some years ago I stood before a big, dry elm in my timber, whose bark was loose one inch or so. By accident I pulled the bark from the tree about 8 inches, and to my surprise I saw several bee-moths running around on the inside of the bark, just as they do when disturbed elsewhere in their hiding-places. This was nearly a mile from my apiary. Now I am tempted to ask the Professor, How did the moth get there? or where were they hatched out? and what did they live on?

A bee-keeper tells us in the Acker and Gartenbau-Zeitung that he knows several bee-trees in his vicinity which are stocked with bees nearly every year, but are always destroyed in two to three months by the bee-moths. W. Buechner, from Texas, writes on same page: "I have found dozens of moths in the pupa state mostly in winter time in hollow trees, but nowhere except where a colony of wild bees were destroyed by the moths." This evidence was given in opposition to my theory, but are they not a strong argument on my side of the question?

Those wild bees were surely not Italians, else not all of them would have been destroyed by the moth alone. But I would ask again, Where did these moths come from, and on what did they live the other seven or eight months of the year?

By the way, does any one know how old a bee-moth gets to be? and how far away from her birth or hatching-place she is likely to move or fly? It would surely interest many of the readers to know. Will Prof. Cook kindly give us some information on this question also?

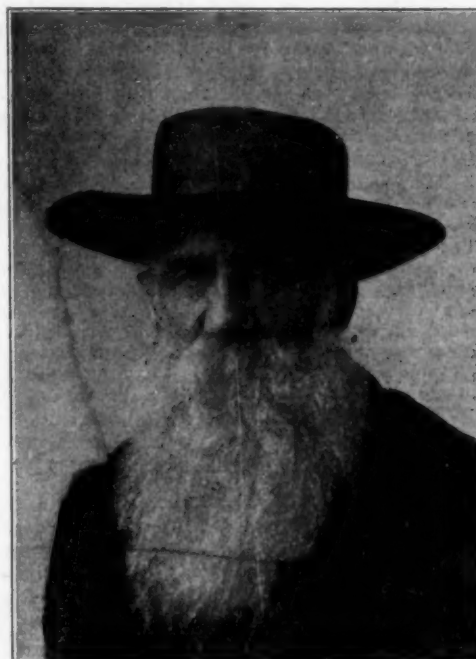
I am with the Professor when he says, "If possible she (the moth) goes to the combs, else she lays her eggs as near to them as she can reach, as I have had combs attacked that could not possibly be reached by the moth." The latter has been just my experience, and therefore, and for other reasons, I believe that the moth-eggs are in the pollen of combs before taken from the center of strong colonies of Italians, where it is impossible for moths to lay eggs, and if there were newly-hatched moths on such combs, they would be visible in three or four days on the combs after taken from the bees. But that is not the case, for it takes from 7 to 12 days in warm weather before any signs of moth-worms are visible on such combs, and then always on the pollen. Besides, my bees carry and clean more or less moths, of all stages of development, out of their hives all the year around, which I have

often witnessed in my winter cellars, when they are generally left at the entrances of the hive.

I doubt very much that the moth lays eggs in a temperature of 40° to 42°, as in the case of my bee-cellars for five months while the bees are in them, and if any eggs were laid in or near the hives in summer, they would have been hatched long before real winter set in, in this latitude as a rule about Nov. 10.

Taking all these connecting evidences, and the fact the moth is a night-caterpillar, whose nightwork is hard to understand and observe, I cannot see any other way than that the bees carry and store the eggs with the pollen, and that the moths live and thrive elsewhere besides at or around bee-hives and apiaries.

Before I close I will give another experiment I witnessed not long ago. As the season here was a poor one, I had to feed my bees for winter, for which I boiled sugar and water together and added some honey until I had a 50-gallon barrel nearly full. This was on the evening of Oct. 13, 1897. The



Father Joshua Terry, of Utah—See page 68.

barrel was left open about 15 rods away from my home apiary, in the open air to cool off. The night was warm for the time of year, and on the morning of the 14th the thermometer showed 65° above zero. I went to the sugar-honey barrel and found it nearly covered with dead and dying bee-moths, with their wings spread and fastened to the sweet mass, and after I pulled them out and had thrown them away, I was

sorry that I did not look for eggs about them. I counted 23 bee-moths, and 2 of those little wee ones described in Prof. Cook's Manual.

Now, I'd like to know where so many moths came from all at once, for I had not seen any around my bees for a long time before this. There was surely many more that ate of the sweets that did not get stuck fast. I am quite sure that they were not all reared around my bees, for everything that would induce the moth is kept snugly out of their reach. I am aware that we can trap quantities of moths with sweets in the summer time, but I never saw them in such numbers as late at October, when we supposed they were nearly all dead or asleep.

The little, wee moth does sometimes considerable mischief with comb or section honey. Some 15 years ago I had about 6,000 pounds of very fine, delicate linden honey in my honey-house for about four weeks. I had to close it tightly as the bees began getting in and robbing. The room got warm and very damp. I sold 4,000 pounds of it to a Minneapolis firm, not noticing anything wrong about the honey when shipped, neither did the receivers of the honey. About four weeks after, I saw part of this honey stored in a large airy room on the second floor, when one of the firm told me that my honey was wormy. I looked and found little perfectly round holes (the size a common needle would make) over much of the cappings of the honey, and some little webs and mealy stuff, and here and there a little worm in the corners and edges of the combs, but there was not quite enough to spoil the sale of the honey.

Three years ago I bought 500 pounds of white honey from a neighbor bee-keeper, who kept the honey for about two months in a tight, close room under the roof of his house, and when he delivered the honey about one-half of it was unfit for market. On some combs there were small patches where the little holes joined and left the honey almost bare of cappings.

These are the only instances of this moth which came under my observation. It seems that they live mostly on the cappings of the combs, and probably some honey, for it is a rare thing that I have any pollen in my section honey that they could feed on. I believe when honey is kept in a warm, airy room, that this moth will do but little harm to the bee-keeper, neither will the bee-moth if the bee-keeper understands the business.

I have never seen the wee "winged" moth that I could be sure of. The two in the barrel above-mentioned compared well with the picture in Prof. Cook's Manual, so it is probably a night-caterpillar, in that respect like the bee-moth.

I cannot agree with Prof. Cook when he says: "I do not think the bee-moth ever lays her eggs in the pollen in the flowers; we never see her about the flowers as we certainly should if her nits were there."

Does not the flower furnish all the elements the moth exists on? Why should she not visit them, when they contain her very life? Does not every critter like to be and live in its elements, or is the moth an exception? By no means do I think that every flower is stocked with moth-eggs; we may examine thousands and not find an egg, but every indication of my experiments leads me to believe that many eggs are stored in the combs with the pollen. That we never see the eggs on the pollen is no proof that the moth will not lay them there, at distances away where they cannot find a better chance to do so. No one would claim that we have no north pole because no one ever saw it.

Wabasha Co., Minn.



Ripening Honey—Sweet Clover Eaten by Stock.

BY J. A. BEARDEN.

I see Mr. E. B. Tyrrell, on page 731 (1897), is in favor of everybody who reads the Bee Journal giving their opinion as to the ripening of extracted honey, but as he does not say whether he wants it ripened naturally or artificially, but leaves us to infer that he meant naturally or as the bees ripen it, I will give my opinion be it ever so light.

The subject is a very important one, as it means good or bad honey according as the bee-keeper wills, altho the honey may be from a good source; for of all kinds of honey, that which is extracted from the combs in a watery stage is the worst yet; still, it can be left on the hives too long.

For instance, a friend of mine had a fine lot of aster honey in his hives in the fall of 1896, but as he had no extractor he got me to take out the honey after there had been a few cool nights, and as aster honey becomes candied very quickly after it is gathered, this lot was about one-sixth candied in the combs, and of course it would not throw out of the combs,

altho I run my extractor very fast. So you see one kind of honey at least must not be too severely ripened.

But I don't think there is any need to be in a hurry about extracting most kinds of honey, for I have my first lot to taste that was taken out before it was cap't, that was as good as that which was thoroughly cap't over before it was extracted.

I have a rule which acts well for me, to determine when honey is ripe enough to extract. It is this: When a honey-flow is on, you can hear the bees making a very loud humming, at night especially; this is the bees' automatic evaporator at work on the newly-stored honey, and as soon as this night humming has almost ceased, your honey is all right and ready to extract. But of course you will not get as much honey as if you had extracted twice or more times during the flow; but your honey will be of heavy body and better taste than that taken off too soon.

If a man (or woman) has a good reputation for producing a fine grade of honey, he or she can ruin that reputation very easily by selling a few lots of thin, foamy or half-soured honey, for such will be the case if the honey is from basswood, not thoroughly cap't or ripened.

Mr. O. O. Poppleton, on page 690 (1897), says he has never had basswood honey so thin as to drip from the combs as Mr. C. P. Dadant has; still, such is the case with me, if it should happen to be very damp, rainy weather at the time of gathering, but if very dry weather is on hand at gathering time the honey is of course very much thicker, but not thick enough.

HOGS, SHEEP AND COWS AFTER SWEET CLOVER.

I have been trying to get some sweet clover to grow on some waste lands about me, but, pshaw! the hogs just hunt it up and dig for the roots as long as they can smell one. And sheep and cows just look it up and eat the last sprig that they can find, for 'tis so much earlier than common red clover.

Lincoln Co., Tenn.



Comments on the "Golden" Management for Producing Comb Honey.

BY W. W. M'NEAL.

On page 742 (1897), Mr. Golden asks for comments. All right, Mr. Golden.

How do you manage to keep pollen out of this double super during the first five days after the swarm is bived? Just why the bees should fill these sections with such choice honey and leave no pollen is decidedly a wrinkle I fail to see. My experience is that bees are inclined to place themselves and their brood between the entrance and the stores. Now, pollen being something that cannot be so easily carried away, is often given a place close to the entrance. This is more noticeable in early spring, and especially so if the frames run parallel with the entrance. The runways provided at the sides of the super may have something to do with it; but why the field-bees, upon their return to the hive, would run up through these to the brood-combs above, and there leave the pollen, returning to the sections below with the honey, is the query with me.

Of the two evils, honey stored in comb built the previous season, and that which is stored in comb built the present season, but containing more or less pollen, I would choose the former for two reasons: 1st, The average consumer of honey would hardly detect the harshness of the comb at all if the precaution had been taken to break away the varnish face of the combs before giving them to the bees. 2nd, But they would detect pollen were it there, and so would the little wax weevil! It is a rare thing to find pollen in sections placed over the brood-combs, save in hives where such room is limited; and when a case of partly-filled sections has been given to a swarm newly bived on frames with only starters in them.

I have tried to get a swarm to build comb under nearly the same conditions that Mr. Golden outlines, but failed in every instance. My hives were prepared thus: If a colony run for extracted honey cast a swarm, I took its surplus cases and placed them over an empty brood-chamber—with starters—with a queen-excluder between the two apartments. Now if there chanced to be any uncapt brood in these upper cases the bees would sulk until they could cap over some kind of a cell and call it a queen, when the swarm would then abscond. Should there be nothing but honey in the combs, they will continue to sulk until something happens. The queen being caged, and the excluder removed, may cause the bees to behave in a vastly different manner, tho like a great many other things it does look that way.

Still, I cannot see why a colony that does not swarm

shouldn't store as much honey as tho it did. Of course, if the swarm issues very early, and the season be prolonged, then the two may exceed what the one would have done. If we can gain for the colony without its having to swarm, that which it gains by swarming, then wherein does Mr. G.'s method have any advantage? I mean the desire and ability to build comb. Nothing so incites a colony to good work as the presence of newly-built comb in the hive. To obtain this vantage ground, a frame of foundation can be hung in the brood-chamber some little time to the giving of the supers, providing the strength of the colony and the state of the weather will permit. Place the frame of foundation between two combs of brood, and in due time follow this up with a super alternated with frames of comb and frames of foundation or starters. A half-depth case is always preferable for the first one given. Sometimes it works better to give a case of combs entire until they have been coast above, when this can be lifted and a section super placed between. It is always well to look to it that the queen be not in the upper case when raising it, for her presence there would work disastrously in that the capacity of the small frames would not be equal to the ability of the queen, which would tend to dissatisfaction; and her absence from the combs below would cause queen-cells to be started, and swarming would be the result. Arranged in this way, a colony can be run for both comb and extracted honey with the incumbrance of a queen-excluding honey-board.

The queen will not now pass the section super to again occupy the upper one, tho the queen-cells in this upper case must be taken away or destroyed as soon as they reach the proper age, or swarming may result just the same had they been built below. But how much easier done in the shallow-case than in the deep brood-combs, heavy with brood and honey.

You may say, Why not put on the excluder at the time the combs are given to the bees, and thus prevent the queen ever going there at all? Well, the point is to get the workers there as quickly as possible; and you all know that if the queen goes there honey will not be long in finding its way there. So when the case is raised and an empty one placed beneath it, the presence of brood tends to draw the *hive-force* away from the brood-combs, and lessens the tension there. The *field-force* will then get a hustle on themselves that tells you something is going to be done. O how they—the *hive-force*—then need air! Give it to them, plenty of it, and always from below. Nothing so causes the upward march of the bees to roll back upon the brood-combs as does the giving of cooling drafts of air from above.

I think that when thus managed bees will store as much honey as they will by the Golden method; and without the great danger (so it seems to me) of getting pollen in the sections.

I will here admit that I have never tried Mr. Golden's way, as he arranges and describes, but I intend to do so. Mr. Golden must use a small brood-chamber, and certainly his bees were not started off properly or they would not swarm with but one super partly filled.

I do not see it exactly, that by hiving a swarm in the double super you get such a large amount of honey that the bees otherwise would have used in building combs for the new hive and storing the same after they are constructed. Let's see. We will suppose a swarm is issuing, or has just issued; I need a few more extracting-combs, or that some I now already have are crooked or contain more or less drone-comb, all of which is tolerably new. I cut the comb out, save an inch or so next the top-bar. These frames are put into a shallow extracting-case, which case is then placed over a similar one tho empty; and the two constitute the brood-chamber to the hive the swarm is to occupy. On this I place a slatted queen-excluding honey-board, and then place the section-cases that were on the parent hive. The swarm is to occupy the old stand, the old hive is given a new location, but before doing this, a portion of the yet remaining bees are to be driven out with smoke. This so weakens them that there is little danger of second swarms. Contract the entrance, and shade the hive well. Now, see here, the presence of the empty super gives sufficient room till the fever subsides; the absence of old brood-combs causes the bees to gather less pollen for the first few days after being hived, and what they do bring in, the narrow strips of drawn comb will catch the most of it by the aid of the honey-board, for a bee cannot easily pass through the perforations with pollen on her legs. The brood-chamber is thus left for about a week, when the empty case is to be taken away, the other now being placed on the bottom-board. The hive may now remain till the honey season is over, or the colony may be re-united with the parent colony about the time the extracting-combs are completed.

All this has been done with only supers for a hive, the increase has been kept down, the extracting-combs have been secured, a few choice queens reared, and I think with as much really marketable honey as if the swarm had been treated according to Mr. G.'s method. However, I am open to conviction. If it can be shown that the bees *do not* store pollen in the section-comb while the super sits beneath the brood-chamber, then perhaps there is no quicker, yet profitable, way of disposing of a swarm.

Scioto Co., Ohio.



Ipecacuanha for Bee-Stings—Figwort.

BY D. S. HEFFRON.

From the Popular Science News, of January, 1897, I take the following:

"A Calcutta physician who was attacked by a swarm of bees was severely stung on the hands, head, face and neck, no fewer than 150 stings being afterward taken from his neck. Fortunately he had some ipecacuanha powder with him which he immediately had made into a paste and smeared over the head, face and neck. The effect was most marked, preventing to a large extent the swelling and pain which invariably follow the bees' stings."

Ipecac, as we call it, is the powdered root of the plant of a light brown color, as fine as flour. It is kept by druggists, and is not expensive. The sting of bees used to pain me severely, and swell badly, sometimes closing an eye, or otherwise disfiguring the face. For the last season, tho stung more than a dozen times, I have escaped both pain and swelling by as prompt a use of ipecac powder as I could procure.

SIMPSON HONEY-PLANT OR FIGWORT.

If I do not mistake this plant, its botanical name is *Scrophularia nodosa*. Prof. Asa Gray says, in his Manual of Botany, it was "so called because a reputed remedy for scrofula;" while Prof. Wood says in his Class-Book of Botany, "So named from the resemblance of the roots to scrofulous tumors." Both the authors quoted agree in the description of the plant, in the form of the flower and fruit, its stem, leaf and habit. It is entirely hardy, found in Canada, the Middle and Western States, but rarely in New England. It is perennial, flowering the second year, and its habitat is along the edges of woods and in hedges, and in other damp and more or less shady places.

The writer has been acquainted with the plant that was recently figured in the American Bee Journal for 50 years, and never found it growing in an open, dry prairie. It begins to flower in July, and continues for about three months. But why should this old plant, introduced from Europe, be called the Simpson honey-plant? In an article in the Bee Journal of Oct. 14, 1897, the writer says: "I consider one acre of the plant worth at least ten of sweet clover." I have no competent personal knowledge. I think it may be worth testing in a small way.

Cook Co., Ill.



No. 5—Recollections of an Old Bee-Keeper.

BY DR. E. GALLUP.

(Continued from page 51.)

I saw that the Langstroth movable-comb principle was correct at a glance, so that was how the Gallup hive came into existence. My hive was 18 inches wide, 12 inches from front to rear, and 12 inches deep. This was in conformity to my ideas of starting with a nucleus or a small swarm and controlling the animal heat with a division-board and building up to a strong colony by enlarging as the bees increase. The top-bar of the frame, V and all, was in one piece with shoulders cut for the end-pieces. The ends or sides of the frame were of the same width as the top-bar, and 3/16 thick; the bottom-bar was 3/8 square, nailed in corner up.

My reason for using so thin an end was that the bees would cluster clear past that, and the queen would occupy every cell, even those adjoining the wood, and by using the 3/8 bottom-bar the bees would build down and on to it, and if necessary past it, down to near the bottom-board. The only objection to this is, the bees are more liable to build onto the top-bar of the breeding apartment from the super combs.

I use my Langstroth frames with the 3/8 bottom-bar. I like a comb built solid to the frame all around. If we have a flat bottom-bar in wintering, even in this climate, there is an accumulation of bits of pollen, cappings from hatching brood, etc., that lodge on this bottom-bar and make a place for moths. Taking every advantage and disadvantage into consideration, I prefer the 3/8 bottom-bar every time. The only

disadvantage is, the combs are a trifle harder to get out of the supers. Still, if we leave the flat bottom-bar in the super long enough for the bees to ripen and mature the honey, as it ought to be, we often find them as bad as the others. Now you have my reasons for modeling a Langstroth hive to suit my fancy.

Mr. Langstroth had the misfortune to have many agents that did not fairly represent him, and one in particular that cheated him out of a large percentage of his just dues. I had the supreme satisfaction of balking him in at least two of his schemes.

Along about this time in my bee-keeping, I obtained my first Italian queen, and along with her directions for rearing queens in small nuclei boxes, 4 by 6 inches, and of course went into rearing worthless queens with all the enthusiasm imaginable. After two seasons I found all was wrong from beginning to ending, so I studied up a far better plan.

About 1864 I sold out and moved to Iowa, and settled in Mitchell county, in an excellent locality for bee-keeping. The next question was, where to get a stock of bees to start with. The country was new and only partially settled, and no bees kept that I could hear of anywhere near. I finally obtained an old worthless colony 45 miles east, moved them home in midwinter, and put them in the cellar. In March I found a colony in a hollow tree, cut and moved them home, and sent off to Wisconsin for a queen, but did not receive her until July. In the meantime I had coaxed the old queen until she had a fair-sized nucleus. The found colony was a fair-sized one. I had transferred both in the spring.

After the first of July I built up to 7 good Italian colonies to put into winter quarters. Now I must tell of a mishap that came very near ending Gallup's career in this world:

I set the hives on a platform up over a pile of potatoes. One Sunday, along in the winter, while at dinner, I heard a crash down cellar, and on going down with a light found one end of the platform broken down, and five of the hives had slipped off and rolled down the pile of potatoes. The combs had nearly all rolled out, and were mixt promiscuously together on the potatoes and cellar-bottom. Well, I righted them up and placed the right number of combs in each hive, and then allowed the bees to crawl in as best they could. But I was stung fearfully. I would work as long as I could, then rush up and out into the cold air, brush off the bees, and back again. I bloated all up, turned a dark purple, and if I had not known what to do, I should surely have "past in my checks."

The remedy in such cases is a cold, wet-sheet pack. I have cured other cases in the same manner. One in particular, where the patient had become helpless and speechless. For a horse that gets badly stung, put on blankets wet in cold water, and pour on cold water. I cure rattlesnake bites, both in man and beast, by the cold-water process.

Well, I borrowed a great sight of trouble the balance of the winter for fear I did not get a queen in each hive, but good luck came in, and they were all right. So much for luck. Orange Co., Calif.



Something About Queens—Stopping Robbing.

BY C. B. ELLIOTT.

While I am somewhat a novice in apiculture in Colorado, I have been noting with much interest the articles of Dr. E. Gallup and others on establishing a standard for queens—see page 660 (1897). All I shall speak about is my own experience. I give it for what it's worth, and there may be some points in it worthy of consideration.

The last week in September, 1896, I by chance found queen-cells in one hive that for some reason had lost their queen. For fear the young queen might be lost in mating, I took out one cell and gave it to handful of bees in an American hive, which was full of honey. I did this simply to be on the safe side in mating. The colony rearing the queens was rather weak.

On Oct. 3 to 5 I found both queens had hatcht about the 15th, both to my surprise laying. Now, what to do with both queens was the problem. As the handful had plenty of honey, I decided to let them chance it. I do not think there was one pint of bees.

To my surprise, about Jan. 1 the handful of bees was about double in size, and the queen was still laying. There was brood in three frames. Monthly, from then on till spring, I watch them. She was laying continuously, gaining ground all the time, and by June they were one of the strongest colonies I had, out of 190, spring count. This colony produced as much, if not more, honey than any other I had. By an

oversight I failed to keep track of the number of supers filled by them, but as nearly as I can tell it was eight or nine. They did not swarm during the season. I kept three to four supers on all the time. They still would hang out of the hive, as all could not get inside.

The sister queen I lost track of, as I bunched my hives together for wintering, and would have known nothing about this one had she not been in an odd hive with a handful of bees, and keeping track of them through curiosity.

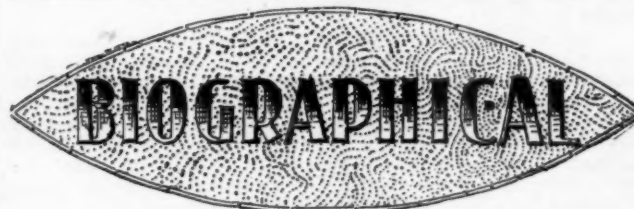
I am now experimenting with 10 October queens, started laying about the 15th; now they have a nice lot of brood. The 10 colonies are all weak. I started into the winter with 354 colonies, all with plenty of honey, and all strong, with the exception of the 10 mentioned.

HOW TO STOP ROBBING.

I noticed an article on stopping robbing. My plan is this, and it is effectual: Close the hive all but a half inch, or such a matter, then every few minutes sprinkle or spray the front of the hive, bees and all, with a strong solution of salt water. The water should be quite briny. Don't fear, it won't hurt them, but on the contrary it will do them good, and will stop robbing in a short time.

By the way, I spray my bees fall and spring, with salt water quite strong, about a half teacupful to the hive. I raise the cover and spray down, and I don't believe you can find a livelier lot of bees anywhere than we have. Also during the summer, if I find a colony not doing as they should, I treat them to a dose of salt water.

Arapahoe Co., Colo., Nov. 2.



JOSHUA TERRY—A UTAH PIONEER.

[The following biographical sketch was kindly sent us by Mr. Terry's friend—and our friend, too—Mr. E. S. Lovesy, President of the Utah State Bee-Keepers' Association:—Ed.]

Joshua Terry came to Utah 50 years ago. He is one of the few now living, of that noble and honored band of the long ago. He is one of those who received the homage of a grateful people in our jubilee year of 1897. Mr. Terry says our grand jubilee, in bringing together old faces, old friends and acquaintances, made him feel for the time being almost as if he were again living over again those eventful times of 50 years ago, when they traveled over one thousand miles of a trackless wilderness and settled here on what was then known as the Great American Desert. But they formed the nucleus that has now grown into a great State.

Joshua Terry was the son of Parchall and Hannah Terry, and was born in Home District, Canada, Aug. 11, 1825. When he was 13 years of age he moved with his parents to Sheridan Co., Mo., and from there he moved to Illinois, where he followed farming for five years. He then went to Iowa, and from there to Utah in 1847, and settled with his parents at Draper, on a very fertile plat of land near the base of the Wasatch mountains about 20 miles south of Salt Lake City. But having formed an acquaintance with some mountaineers in crossing those wild plains where the States of Nebraska and Wyoming are now located, and being then a young man about 22 years of age, with a strong, robust constitution, and a romantic turn of mind, of a roving disposition, he determined to push out into the wilds of what is now a part of the State of Wyoming, in the vicinity of the headwaters of the Green river, a section of country then virtually unknown to white men.

For ten years he lived as a hunter and trapper, trader and mountaineer, in those mountain wilds with an old, trusty Delaware Indian as a friend, and sometimes accompanied by other white men. The thrilling incidents told by Father Terry of his many exciting adventures and narrow escapes causes the blood to tingle in one's veins, and almost makes one feel that the same scenes were being enacted over again. It is almost certain that only for this tried and true friend,

the Delaware Indian, Father Terry would not be with us to-day. In rehearsing those wild and trying scenes, enacted nearly 50 years ago, we find that it was then, as it is now, man's greatest enemy was man, and wicked men roamed those mountain wilds; and the more an honorable man became possessor of this world's goods, the greater was the schemes of unprincipled enemies to get possession of it. As the old adage goes, that dead men tell no tales, thus we see that in many instances those cruel enemies of mankind would sooner take the lives of their victims than to spare them. Thus many lost their lives for what they possessed. Of course, many of the red men look upon all white men as their natural enemies. Thus, we see that their lives were often in extreme danger. For this reason they always had to carry their rifles with them for protection, and they often lay down with them in their arms. They would often camp ostensibly for the night, build a fire, cook and eat supper, then replenish the fire and travel many miles over a mountain or across a valley before camping for the night; and then no matter how inclement the weather, Mr. Terry says that on those occasions they dare not for their lives light a fire unless they found a cave or hole in the rocks where the fire could not be seen. By this and other stratagems they many times saved their lives. Sometimes their enemies would rush on them as they thought, only to find that the birds had flown to parts unknown.

After ten years of this venturesome, risky life, his old Indian friend died, and Mr. Terry returned to Utah, and settled at the old homestead. He married Miss Mary Emma Reid, an estimable lady of Draper, Jan. 20, 1857. Fifteen children have been born to them, 8 of whom are still living; and from that time till now he has been extensively engaged in the bee industry, farming and fruit-growing. Some years ago Mr. Terry is said to have owned the finest orchards in Utah.

In 1870 Mr. Terry imported 200 colonies of bees from California, at a cost of \$2,200, or \$11 per colony. During the winter 50 of them died, causing a loss of \$550. But by thrift, energy and perseverance he has made a success of the bee and fruit industries, and also of other pursuits in life. We sincerely wish him yet many years to enjoy the fruits of his labors.

E. S. LOVESY.

QUESTIONS AND ANSWERS

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Was the Colony Queenless?—Combs of Honey for New Swarms Next Spring.

1. On Jan. 1 I sold a colony of Italian bees to a neighbor, he to furnish the hive. On a warm day I lifted the frames of bees out of my hive and into his; on doing so I discovered by one frame that they were queenless, and altho I did not search for the queen I united them with another colony. Was I right in calling them queenless?

2. In the fall having more colonies of bees than I wanted, I killed four colonies by the sulphur plan, and I now have the combs of honey; they are nice, straight combs, well filled with honey, but the honey is too dark to eat. Can I utilize them by giving two or three frames to each new swarm in the spring?

CALIFORNIA.

ANSWERS.—1. Can't tell for certain. If the drone-brood was only in drone-comb, it is just possible they were all right. If it was more or less in worker-comb, they either had a bad queen or laying workers.

2. Yes, your plan will work all right. Keep the combs where the honey will not granulate.

How About Bees Under Snow?

What danger is there of bees smothering under snow if the entrance to the hive should not be opened? Some contend that they will smother, while others say no, and the snow is a help to them.

COLORADO.

ANSWER.—Testimony is somewhat conflicting, as you have found. That's probably because results have been different in different cases. One man finds his bees come out in

the best condition after having been buried completely by snow for a certain period. Another, with some change of circumstances, finds his bees ruined. In one case the bees have been covered in such a way, and the temperature has been such, that the bees have had all the air they needed, and the bees have remained at that temperature that allows them to be most nearly dormant. In another case snow has thawed and afterward frozen so as to close the entrance and smother the bees. In still another case the bees have been buried under a deep bank, where they have remained a long time, the snow gradually receding from the hive and leaving an open space, the air coming through the surrounding snow in sufficient quantity for their needs, and the bees have been kept very warm. They start brood-rearing on a pretty large scale, become too active, and diarrhea makes bad work with them. Better not put too much trust in a snow-bank, as yours might not be one of the very successful cases. At any rate, better not leave the entrance closed too long.

Dividing Colonies—Stimulative Feeding, Etc.

1. How early in the spring can I commence dividing?
2. What time can I commence feeding sugar syrup for stimulating, as I wish increase of bees?
3. Can I take queen-cells from frames, and after putting them into queen-cell protectors with spiral cages, fasten them in the combs of the same colonies until I need them, when I commence to divide? I have six colonies, and wish to increase six or more, if the plan would work all right, and save sending south for queens.

KANSAS.

ANSWERS.—1. That depends mainly upon the strength of the colony, and you will find that in general colonies will not be strong enough to divide profitably till about the time of natural swarming. That may come in May or June in Kansas. Of course, you could divide in the first part of March, but it would be a losing game.

2. You may begin stimulating as soon as it is warm enough for bees to fly freely every day. But don't count on too big a gain in that way, and you may not be so much disappointed.

3. You are not likely to make the plan very successful. The virgin queens will not be very well received after being caged some time, unless the bees to which they are given have been queenless for some time. Better try it on rather a small scale.

Wintering—Catnip Honey—Early Queens from the South.

1. When bees are prepared for winter on their summer stands, and they are quiet, are they all right? If they are not altogether quiet, is there something wrong with them? (Of course the hives all have ventilation.)

2. How long may these same bees stay in their hives without a flight and come out all right in the spring?

3. If you were to sow a small piece of ground (say an acre) for bee-pasture, what would you sow?

4. What kind of honey does catnip yield? Some special honey came into my apiary last summer, and I thought it might be catnip. I thought of sowing a piece in the spring to test it. If your answer condemns it, I shall not sow.

5. What is the earliest that I could have queens shipped to me in the spring, and have safe shipment?

ILLINOIS.

ANSWERS.—1. If they are not dead, and if they are perfectly quiet, they are probably all right. But they may be all right without being altogether quiet. If you go to a strong colony to-day that is so quiet that you can hear no noise whatever by putting your ear to the hive, and if the thermometer sinks or rises 10° to-night, you will not find it so quiet to-morrow.

2. It would be a rare case if it came out all right after five months of confinement. The chances would be greatly increased if the confinement were only four months. Some would stand it that long, some wouldn't.

3. That would depend upon circumstances. It would hardly be anything that had no other use except for honey. If no buckwheat were grown in the neighborhood, and if the bees had nothing else to work on at the time buckwheat yields, that might be the best thing. For most places probably sweet clover might be best.

4. I don't know what catnip honey is like. I saw a fine piece of catnip years ago beside the apiary of Jesse Oatman, but I think it was not considered sufficiently profitable to continue.

Unless you have a large family of children of tender years for which to provide catnip tea, I doubt whether it will be advisable for you to use anything for waste land for its occupation.

5. Probably you could have them safely shipped from the south as early as you would be likely to want them, say in April.

Drones—Transferring Bees.

1. If I use full sheets of foundation in every frame in each hive will there be drones enough to supply the apiary? If not, what ought I to do?

2. The colony I wrote you about feeding are doing all right so far. They are in a log 20 inches long, just as I brought them from the woods. If they get through all right, I want to transfer them to a hive. What time would be best, before or after the first swarm comes out?

3. I have one colony in a log that had plenty of honey of their own gathering when I put them into winter quarters. At what time would it be best to transfer them? I want to increase as fast as it is profitable.

4. How late in the fall would it be safe to transfer from a log to a hive with eight frames filled with full sheets of foundation, and properly packed and left on the summer stand?

5. What is the proper width for the alighting-board? Why?

6. How would you transfer a colony from a log to a hive?

MICHIGAN.

ANSWERS.—1. Don't worry. You may do your best to keep down drones and the bees will probably rear a good many more than are needed. If you feel the least anxiety, just break out an inch square from one of the combs and the bees will fill the gap with drone-comb.

2. You can transfer them in time of fruit-bloom, and perhaps with more satisfaction three weeks after swarming.

3. Either in fruit-bloom or three weeks after swarming.

4. If you mean to feed them, it might be done early in September. If you expect them to lay up their own stores, it depends altogether on the pasturage. If nothing but white clover, it might not be safe some years after the middle of June, while other years it might do a month later. If they have plenty of fall flowers, they might fill up after the first of September. Your safe plan will be to take them early.

5. That's a matter about which there is no fixt law; 15 inches is a good width, because it gives the bees plenty of room for a front porch, and keeps weeds from growing up in the way. Two inches is a good width, because it is not in the way so as to split off. Perhaps a still better way is to have the bottom project about three inches for an alighting-board, and then have a loose board lying in front.

6. Follow the directions given in your bee-book for transferring from a box-hive, using your judgment for what variation must take place to fit the particular log in hand. Perhaps you'll do well to saw up as close as possible to the combs at each end, then drum out the bees, and split the log in two at that part which you think will break the fewest combs.

Complete Volumes of 1897.—We have on hand about 40 complete volumes of the American Bee Journal for 1897, which we will mail to any one upon receipt of 60 cents. We also have about the same number of the first six months' copies of 1897, which we will mail for 30 cents. As there were 832 pages of the Bee Journal last year, here is a chance for our new subscribers to get a good deal of valuable reading-matter for a very little money. Better order at once, before they are all gone.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for \$1.25, or club it with the Bee Journal for a year—both together for only \$2.00.



Uniting Colonies.—The Bee-Master says instead of gradually moving together weak colonies to be united, unqueen the colonies to be moved, 11 days later destroy queen-cells, and 2 days later they'll stay where put. Or, remove queen and all brood, and unite two days later.

Brood-Rearing in Winter.—Doolittle says in *Progressive* that Quinby was correct in saying that brood-rearing would commence in all good colonies about Christmas, but that meant in colonies wintered outside. In the cellar, with perfect wintering, there is rarely any brood when set out in April.

The Pettit Comb Honey System.—The A. I. Root Co., in connection with the fence separators, propose to make use of the Pettit plan, by having a fence between the outside rows of sections and the sides of the super. S. T. Pettit thinks this will not be so good as his "dividers" with $\frac{3}{8}$ holes, for with sufficient space between the slats the sections will be made ridgy.

Honey in Kongo.—W. Housiaux says in *Progres Apicole* that in Kongo honey is used as fresh as possible, as it sours in a little more than a week. As Kongo lies under the equator the continuous hot weather favors souring, but it must be pretty thin stuff. It is used under different forms, in cakes made of bananas and rice, but usually in place of sugar with rice.

To Hasten Laying of Hens.—The *Bulletin Horticole de Liege* gives as a condiment to hasten the laying of hens the following: 6 parts honey, 3 parts flour, 1 part wood ashes. Warm the honey and stir in the flour. When cold beat well. Spread the ashes thinly on a molding-board, and roll on it the paste till the ashes are absorbed. The ashes may be replaced by ground pepper or ginger, and lime may be added.

Average Yield Per Colony.—Doolittle says that in the last seven years of the 70's his average yield was 106 pounds, nearly all comb honey, in one year 134 pounds; and in 1877, 166%; one colony giving 309 pounds comb, and one of the two worked for extracted giving 566 pounds. But the woodman's ax and the farmer's plow have brought down the average of the past five years to 70 pounds.—*Progressive Bee-Keeper*.

Keeping Honey.—Not only is it necessary, says Doolittle in *Gleanings*, to keep honey in a warm, dry room, but it must have sufficient ventilation to carry off the moisture from evaporation. Soured honey may thicken in such a room, but it will never be as good as new, especially in sections. Sections of honey placed near the floor will not have so good a chance as those higher up, so it is well to have a platform a foot above the floor.

Strap-Iron Frame-Spacers.—These are pieces of strap-iron $2\frac{1}{4}$ inches long, let in perpendicularly into saw-kerfs in the end-bars. They are meant to be an improvement on the Hoffman frame, and the editor of *Gleanings* calls attention to them as used by W. F. Marks, to avoid the propolis of the regular Hoffman. The same thing has been in use for some time with others, and it is likely that it has been originated in more than one place.

The California Foul Brood Law.—This law has been chased down by the Pacific Bee Journal after a long hunt, and it seems it has been in existence about 15 years. It authorizes the Board of Supervisors of any county to appoint an apiary inspector and fix his pay. If any one complains to the inspector that foul brood exists in a certain apiary, the inspector must visit such apiary as soon as practicable, "and direct the person in charge thereof to destroy all hives ascertained to be so affected, together with the combs and bees therein, by burning or burying; the same to be done the following night." A section that the editor thinks is known to but few, directs that any one owning or having charge of an apiary who finds out in any way that he has a case of foul

brood, must destroy the hive, bees and combs under penalty of \$5 to \$25 for the first offence, and not more than \$50 for each subsequent offence.

Little to Learn.—A letter in British Bee Journal from Mr. Hooker, who is visiting in or near Philadelphia, says: "From what I have seen and the conversation I have had with bee-keepers, who have been most pleasant and communicative, I think we have little to learn from our American friends as to management, etc. They have, however, a much longer honey season than we." Maybe neither side could learn from the other, and maybe either could.

Moths Eating Colonies.—Doolittle took Alkin to task in Progressive for saying something about colonies being attacked by worms or moths, and D. L. Tracy comes to the rescue and says moths don't have such power in Colorado, but in Iowa he has seen the moth literally eat up a colony that was lively, with no sickness or languishing; "10,000 bees to the frame, and 10 frames to the hive, yet the moths completely annihilated them." Wouldn't that make Doolittle gasp?

Winter Food.—A. S., in British Bee Journal, says that after having fed tons of sugar syrup, feeding in all sorts of ways, he is forced to the conclusion "that the best course, with regard to feeding, is to avoid it altogether, by leaving the bees sufficient natural stores to last till honey comes again," whenever this can be done. He says: "Again and again has it been made plain to me beyond dispute that colonies requiring no spring feeding are ready for work in supers before those that are fed in the most careful and judicious manner."

Development of Foul Brood.—P. Beuhne says in Australian Bee Bulletin that Mr. McEvoy is right, that perisot brood will develop foul brood, if he should add, germs are present. He thinks there is no occasion to be at cross purposes with scientists, who contend that no foul brood can develop without germs. No use ignoring the fact that nothing can spring from nothing, and where there are no germs no amount of rotten brood will develop the disease, while in places where germs exist neglected brood makes disease more liable to develop.

Bees and X-Rays.—Henry W. Brice, a bright writer in the British Bee Journal, refers to Roentgen's discovery, and thinks it possible that bees make use of rays invisible to human eyes. How can bees come out of the absolute darkness of a hive's interior and fly without hesitation, when a human eye would be blinded by the sudden change? What power of vision enables bees to work with such beautiful accuracy in complete and utter darkness? Does the queen utilize the X-rays to allow her to see through the wall of wax, so as to place her eggs exactly opposite those laid on the other side of the comb?

"The Alcohol Test" is a very simple one for detecting the presence of glucose in honey. Glucose seems to have an affinity for alcohol; and when a small amount of the latter is poured over the surface of the mixture the glucose will send up little threads and balloon-like bubbles into the alcohol. Alcohol placed upon the surface of pure honey creates no agitation whatever." So says John H. Martin in Gleanings among items in his "California Echoes." So much has been said that is false with regard to testing with alcohol, that this test will probably be fully tried before entire dependence is placed upon it.

Prevention of Swarming.—Lacoppe-Arnold in Le Rucher Belge says the following plan has been successful with him: Take from the hive all the frames with adhering bees, and put them in an empty hive. Then brush off all the bees at the entrance of the old hive, and as fast as they are brushed off put them back in the old hive, first removing all queen-cells, in place of two of the frames, however, putting in frames of foundation. Then add the super. When he had done this, he says the bees were completely disconcerted. They found combs to build, plenty of room, and the next day killed the drones and gave up all notion of swarming.

The Bee-Space.—Hardly a farmer was without bees in the neighborhood of F. Greiner when he first commenced bee-keeping, as he relates in Gleanings—soap-boxes, barrels and nail-kegs being among the hives used, and bees were kept rather successfully as to wintering as well as to producing

honey. After he sold them new-fangled hives and transferred the bees, one after another of the old bee-keepers dropt out of the ranks and converted their hives into kindling-wood, until he was left practically possessor of the field. He thinks the bee-space was to blame for this, as bees would not winter in frame hives with the same care that was sufficient for box-hives. The lesson seems to be that while with proper care bees may winter in frame hives even better than they formerly wintered in box-hives, yet for those who will not give them that care, and who make no especial use of the advantages offered by movable frames, box-hives may be more profitable.

Queen Introducing-Cage.—Take the lid of a tin can, cut a large hole in the top, put a piece of wire cloth inside, and fasten it there neat and flat with solder in three or four places around the edge. Place the queen on a comb where there are empty cells and some honey, place the cage over, press lightly, turning the cage to right and left until it cuts in deep enough to stay, then hang the comb in the center of the hive. Next day make a hole through the comb at the back side with a lead pencil, daub honey on the outside of the hole, return it to the hive and the bees will do the rest. If the queen isn't valuable the hole in the comb may be made at the time of changing the queen. This plan is given in the Australian Bee-Bulletin by W. Reid.

Tall vs. Square Sections.—Of 2,000 sections put on 16 colonies, half were Danzy sections and the remainder square, says B. F. Onderdonk in Gleanings; 728 of the Danzy sections were finished, and 468 of the square sections. The Danzy sections were an ounce heavier than the square, were glazed at a cost of 1½ cents each, and brought 7 cents apiece more than the square ones with cartons and no glass. That for white clover. A rather curious circumstance is that while there was only ½ cent difference between the white and fall honey in the square sections, the fall honey in the Danzies brought 4 cents less than the white sections, which brought 20 cents each. Rather has the appearance that the shape of the section, or the glazing, or both, had something to do with getting a fancy price for the tall sections.

50c worth of Books for 1 new Name.

Send us \$1.00 with a new name for the Bee Journal for 1898, and we will mail you your choice of the list below, to the value of 50 cents.

We make this offer only to those who are now subscribers; in other words, no one sending in his own name as a new subscriber can also claim a choice of this list:

50 copies "Honey as Food"	50c.
Wood Binder for the Bee Journal	20c.
50 copies of leaflet on "Why Eat Honey?"	20c.
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The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

See "Bee-Keeper's Guide" offer on page 43.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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EDITORIAL COMMENTS

Indiscriminate Copying from other papers than bee-periodicals has its dangers. A bee-paper which contains much valuable matter has an article, probably copied, in which it is stated that the drone which meets the queen dies in mating, "his organs being torn from him, and remaining in the body of the queen, forming what is called the spermatheca." The last six words could hardly be written by any one at all familiar with bee-matters, and the editor should be more careful in clipping.

The California State Convention.—Prof. A. J. Cook, now ex-President of the California State Bee-Keepers' Association, has very kindly sent the following paragraphic notes regarding the recent meeting and some of the visitors present:

The California State Bee-Keepers' Convention, held in Los Angeles, Jan. 10, was a very pleasant meeting. We were greatly honored in the presence of Mr. Thos. Wm. Cowan, of England, editor of the British Bee Journal, and Mr. W. L. Porter, of Colorado.

The subject of two Unions was discussed, and all felt that there should be but one Union; and that the one last formed was to be preferred, in that it stood ready to attack any and every evil that confronts bee-keepers. A vote expressing the above was unanimous. It was the opinion of all that adulteration of honey is now our greatest enemy, and should receive no quarter. A national pure food law was stoutly advocated.

The work of the Bee-Keepers' Exchange was praised. It is a general opinion that this organization is very desirable.

It is to be hoped that it will receive the aid and support that it deserves.

Mr. C. A. Hatch, formerly of Wisconsin, was elected President of the Association, and Mr. J. F. McIntyre Secretary. With such officers the California State Bee-Keepers' Association will surely prosper.

Mr. Cowan recently addressed the large farmers' clubs institute, and the students of Pomona College, on the relation of bees to horticulture. This address is a very valuable statement of most important truths. It should be heard by all our people.

A. J. COOK.

Dr. Besse's Sweet Clover Lawsuit.—We have received the following from Dr. H. Besse, of Delaware Co., Ohio, dated Jan. 18, in reference to his suit against the township trustees who cut down a field of sweet clover just as it was about to be valuable for his bees:

MY DEAR MR. YORK:—As I promised to keep you informed in regard to my lawsuit, I take the present opportunity to inform you the jury found in favor of the defendants. This was a surprise to nearly every one present. The court house was crowded during the two days that the trial continued (last Thursday and Friday). I think that the jury were much prejudiced against sweet clover, as the defendants' attorney claimed that I had sowed sweet clover seed along the roads all over the country, and it was such a nuisance!

And further, that I had not rented the field on which the clover was of the legal owner, who was my wife, altho she has been in peaceable possession for the period of 24 years, or since the time her first husband died. My wife has one son now living, but was in the far West when his father died. Then in a few weeks after his father died he came home, and staid about six weeks, when he returned West and was changing from one place to another, and in a few years stopt writing to his mother, and for 16 years she never heard from him, until in 1893, when she found that he was living in New Mexico, and wrote him to come home, which he did in February, 1896. When he last left home he left the farm in his mother's care, and she never had her dower set off. Now, the sweet clover was sown the year before he came home, and he found no fault about the growing of sweet clover on the farm until I sued the trustees, and that made him very angry with me, as well as with his mother. You see, the defendants claimed that when my crop was destroyed, the ground was not under my wife's or my control, and the son and trustees had the right to destroy my crop. I think that they had no more privilege to do so than they would have to destroy a field of wheat.

My attorneys have made a motion for a new trial, and if the Unions stand by me, I will push it as long as they will assist me. I think that we should not surrender at this stage of the fight.

Very respectfully yours,

H. BESSE, M. D.

Feeding Sweet Clover to Farm Stock.

We believe in giving both sides of a question when there are two sides. It seems from the following that "locality" has quite a good deal to do with the eating of sweet clover by farm stock:

MY DEAR MR. YORK:—On page 25 I notice your editorial regarding Prof. Cook's statement with reference to sweet clover being "worthless for anything except bees." I fully agree with him. There is a great deal of both the white and yellow varieties of sweet clover around my home, but not one of the animals on the place will touch it. I have tried feeding it in its various stages—young, old, fresh, dry, cut and growing. In the early spring before the other pastures are fit for use, one would naturally suppose cattle would be crazy for green food, but they wouldn't touch the sweet clover. They would sniff at it, look at me so sorrowfully and say as plainly as an animal can, "Say, what yer givin' us? Aren't you heartily ashamed of yourself for offering us this kind of stuff to eat?"

This matter of feeding sweet clover was not given up after a few trials, but after many, and during the last few attempts I was so ashamed that I couldn't look the animals in the face. My stock may be very peculiar and particular—about that I don't know, but I do know they simply will not eat sweet clover in any form. I have no goats—they might eat it.

Prof. Cook being asked for his opinion regarding its feeding value, could not answer contrary to what his experience had been. If you will remember, at St. Joseph during the

convention of the North American Bee-Keepers' Association, this matter was discussed pro and con. That discussion was what prompted me to make the trials. This question was also freely discussed at the Nebraska bee-keepers' convention held in Omaha two years ago, in which discussion both sides were presented.

To be sure, stock may be starved until they will eat anything that will answer for roughage, but I suppose we are all talking about stock that is kept in an intelligent manner. A week or two ago I took a cow out of the barn and picketed her in a place where there was dead grass and also a lot of fresh, green, young sweet clover. She ate the dead grass all right, but wouldn't touch the sweet clover.

The white variety of sweet clover is excellent for bees, but they don't seem to care much for the yellow variety here.

Yours truly,

LOUIS R. LIGHTON.

Douglas Co., Nebr., Jan. 14.

We believe it would be a good thing to have a few more testimonials on this subject, from those who have had actual experience with sweet clover as a fodder plant. Perhaps Mr. Wm. Stolley, of Hall Co., Nebr., can give some new light on this matter. He has had large experience with sweet clover for hay, and doubtless can tell how to educate stock so that they will eat it the same as the other clovers.

California Bee-Keepers' Exchange.—Ex-Secretary John H. Martin sends us the following report of the late meeting of the Exchange:

At 2 p.m. Jan. 11, the Bee-Keepers' Exchange was called to order by Vice-Pres. C. H. Clayton. The Secretary read the minutes of the last annual meeting, and the minutes of all of the meetings of the Board of Directors and Executive Committee, which were approved.

Mr. Clayton reported upon the financial condition of the Exchange, which showed favorable progress when we consider that the first season was a failure in honey-production, and this season the markets have not demanded honey as in former years.

The present Board of Directors will hold over until another year, or until a special meeting is called.

The present Board of Directors met with Vice-Pres. Clayton in the chair. J. H. Martin, who has served as Secretary, owing to poor health and the fact that he never felt himself qualified to handle the honey proposition, desired to retire from the office, whereupon C. H. Clayton was elected Secretary and Manager. R. Touchton was elected Vice-President, and J. H. Martin one of the Executive Committee. The Board then adjourned.

Something About Marketing Honey.—Mr.

Wm. A. Selser is a bee-keeper who has also had much experience as a honey-dealer in Philadelphia, Pa. He has kindly written the following advice, which he feels ought to be heeded by at least the more extensive bee-keepers, if they wish to realize the most from their honey crops:

— The late arrivals of California honey has demoralized our market. As fancy white comb honey as I have ever seen is selling at 10 cents a pound. I have urged the bee-men for years to ship their honey to the city markets early in the fall. All honey should be marketed before Thanksgiving. History repeats itself every year, and I am getting letters every day from Eastern bee-keepers who want to sell their crop at any reasonable offer. The result is, they can't compete with California, and they will carry their crop over or sell it through a commission house at a few cents a pound.

The reasons are obvious. Commencing in August the California Exchange and shippers offer through the brokers (of which each Eastern city has an immense overstock) their honey in car lots. The wholesale grocers, the bakers and dealers take hold, and car lots are arriving continually till about Dec. 1, when these buyers all get filled up. Then California realizes the outlet in this direction is closed, and then the damage begins by their shipping car lots to these brokers and commission men, drawing on them for half the value of shipment, and the receivers paying the freight. These brokers and commission men finding the car-lot buyers filled up, after holding it a few weeks and being out of the money they have advanced, they sell it out in small lots to the retailers at any reasonable offer.

□ I have again and again insisted on the bee-men selling their honey in September, October and November, before such

conditions of affairs begin. Yet every year after Jan. 1 bee-men wake up to the fact that they have a big crop of honey on hand, without any prospect of selling it.

I do not sell honey on commission. I have a number of apiaries under control that produce for me all the honey I can sell, and in giving the above facts I have no interest except for the good of the honey-producer. WM. A. SELSER.



MR. JOHN BAGSHAW, of Ontario, Canada, wrote us Jan. 24:

"Keep at the dishonest commission men and adulterators. We are all with you."

MR. C. THEILMANN, of Wabasha Co., Minn., writing us Jan. 24, said:

"The weather is fine, but no sleighing. Bees are seemingly wintering well."

MR. JOHN H. MARTIN (Rambler), of Los Angeles Co., Calif., writing us Jan. 22, said:

□ "We are having continued dry weather, and the prospects are not flattering for a flow of honey during the present year."

MR. LUTHER S. HILDRETH, senior member of the firm of New York honey-dealers—Hildreth Bros. & Segelken—died Jan. 17. We are informed by Mr. Henry Segelken the business will be continued as heretofore under the same firm name, and without change of capital.

MISS GRACE PRINGLE—daughter of the late Allen Pringle, of Selby, Ont.—in a letter written us Jan. 24, said:

"Mother and I are making arrangements to leave the farm in March. I have given the most, or, in fact, all my bees out on shares."

REV. L. J. TEMPLIN, of San Diego Co., Calif., writing us Jan. 10, said:

"This is the first day this winter that my bees have not been able to fly and gather both nectar and pollen. Their sources of supply are orange, lemon, pepper and eucalyptus trees."

ROSE KENNICOTT, of Delta Co., Colo., when sending us her membership fee for the United States Bee-Keepers' Union, wrote:

"I have made a success of bee-keeping, managing 250 colonies with no other knowledge than that I have gotten from always doing what the American Bee Journal advises."

MR. A. W. HART, of Stephenson Co., Ill., was the victim of heartless and almost hurtful errors on our part, which appeared on page 45, where we printed his name H-u-r-t instead of H-a-r-t. We also put him in Will county in place of Stephenson. We beg his pardon, and trust that we will not soon have the "Hart" to "Hurt" him again; nor to move him from one county to another.

CATALOGUES FOR 1898 have been received from the following, who patronize the advertising columns of the American Bee Journal:

Interstate Manufacturing Co., Hudson, Wis.—Bee-Keepers' Supplies.

F. A. Crowell, Granger, Minn.—Queens, Bees, and Bee-Keepers' Supplies.

R. H. Schmidt & Co., Sheboygan, Wis.—Bee-Keepers' Supplies.

— The A. I. Root Co., Medina, Ohio.—Bee-Keepers' Supplies.

MR. ALBERT VOUGHT, a bee-keeper in East Carroll Co., La., writing Jan. 15, reported the arrival of a fine 8-pound boy who fully intended to make his permanent abode with them. Mr. L. W. Trumbull, of this (Cook) county, called recently, and he also informed us that a son had come to brighten their home. We sincerely congratulate these fellow

bee-keepers on their good fortune, and only wish that our two dear babies, that came to us within the past three years, could also have remained with us. But as they were both taken we can only rejoice with others who are more fortunate, for we have been assured that they with many others sorrowed with us in our losses.

CONVENTION PROCEEDINGS

Report of the Northwestern Bee-Keepers' Convention, Held in Chicago, Nov. 10 and 11, 1897.

REPORTED BY A SPECIAL BEE JOURNAL REPORTER.

(Continued from page 58.)

FIRST DAY—EVENING SESSION.

DRAWN COMB.

"What is drawn comb?"

Pres. Miller—Any comb made by the bees is drawn comb. That is all there is of it. I don't know why it should have that attach to it, and yet of late it has been used quite often. If you have comb made by the bees, it is drawn comb. If any have any amendment to the definition I would like to have it. Drawn comb and drawn foundation are two different things. If no one has an amendment, we will pass to the next question.

PACKAGES FOR RETAILING EXTRACTED HONEY.

"Which is the best and cheapest package of 10 pounds for extracted honey?"

Dr. Besse—A 10-pound pail.

Pres. Miller—Has any one any other package to suggest than a tin package?

Mr. Schaper—I have purchased 100 wide-mouth stone-jars, also crocks; their cost is about eight cents apiece by the hundred.

Pres. Miller—What will be the cost of the tin ones?

Mr. Baxter—Ten cents a piece, they cost me. I sell the whole thing, and if they are returned all right; if they empty it out I take so much off. I sell it at 15 cents a pound on the market right along. This year I didn't extract any.

Pres. Miller—Mr. Schaper has the advantage in the matter of price if his package is as satisfactory as otherwise. The question probably would come in as to whether the stone package would be considered as desirable to the customer for use afterwards; that is a thing we must always consider.

Mr. Rohrs—I have bought this year different sizes of tin pails; some were five pounds, others seven, others about 14 and 14½, and if I remember correctly they cost me, on an average, about 6½ and 7 cents. They have only a plain cover, and as I ship my honey to friends who distribute them among their friends, I like these little packages; they were packed in a box and the board was nailed pretty close, some tight, some not. Some boxes arrived at their place of destination dry and clean, and some of them with nearly all the contents gone, and so I ask, Will that lid close tight enough to prevent leakage? I want a pail where I can take off the cover, because if I show the honey to a customer, I want him to see the stuff I want to sell him, but if I have a tin screw on top, about an inch and a half in diameter, they cannot look into the pail, and I cannot show them what is in there. I should prefer this common pail that I can take off the cover, but want a lid that will close tight, so that in shipping if it is turned upside down no honey will leak out. I see that Mr. Dadant says if he seals it with wax and rosin mixt, when it is warm, it will not leak.

Pres. Miller—Will Mr. Baxter tell us something about the Dadant pail, the circular of which he has handed me?

Mr. Baxter—I consider that the best package for granulated honey. For liquid honey I don't know of a good package on the market. You can turn it upside down or anyway if granulated. For the home market this will do very well, because you can take the lid off, but if you want it shipped away it has to be made so it won't leak. The way I do, I take a piece of wax and tallow and heat it, and invert the bucket into the melted wax and take it out quick, and the wax will adhere all around the rim of the bucket, and the lid will be

tight. That is my method, but it is a great deal of work. I know of no package that fits so tight but what the extracted honey will leak out when it is inverted. There are some, I know, but they are not desirable because, first of all, they are very costly, and the shape and so on are not what we want.

Mr. Wheeler—I know of two or three packages that fill the bill very well for me. There is a can made with a 4-inch screw cap, similar to the 60-pound can cap; they hold 12 pounds. It has a little wire handle on top about three inches long. I don't know what that size costs, exactly, but I should judge not over a shilling.

Mr. Whitcomb—I doubt whether there is anything better for the purpose than a half gallon screw-top can.

BEST RETAIL PACKAGE FOR CITY TRADE.

"What is the best retail package for city trade in extracted honey?"

Mr. Wheeler—In the screw-top can you have one that you may ship anywhere and may liquify in, and also by removing the top show the quality by turning a little honey out on a piece of paper. Honey can be exhibited to customers better that way than any other way. We sell our own honey to our own customers, and usually put it up in that way, where orders from a distance come in, but in the store we keep it in 60-pound cans, and always show the honey on a piece of white paper. I think 10 and 11 cents would cover this 10 and 11 pound can; they are very neat. The freight rate on them is the same as on syrup, or nearly the same. It is almost impossible to put it in a bucket and seal it down so it won't leak; if it is thrown down by freight men, that starts the cover at once, and it leaks out, and you not only lose the honey, but it makes your customer feel ugly, and he doesn't want any more of it. I doubt if we can get anything in the world better for all purposes than the screw-top can.

Mr. Rohrs—It was suggested to me to put a little rubber ring on top of the can, and then put the lid on, and that it would prevent all leakage. Has any one experience with that?

Mr. Wheeler—That will answer all right until the baggage smasher gets hold of it; the minute he turns that upside down your honey will leak out. You cannot afford to do that. I have had no complaint shipping these 10-pound pails to Kansas and Missouri. I have had customers there for 12 years, and they would not have a bit of honey in screw-top cans. I have tried it in both of my own markets and Fort Madison.

Mr. York—I would like to ask whether Mr. Baxter ships to private families or to dealers.

Mr. Baxter—Both.

Pres. Miller—Is your honey candied or liquid?

Mr. Baxter—I ship it just as soon as I get orders.

Mr. Baldrige—For the retail family trade I don't want anything better than common house-pail; a two quart pail will hold five pounds net, with about ¾ of an inch space above it, and the families who buy the honey have the pail to use afterward, and it is a useful article in every household. Those pails can be bought by the gross for less than 5 cents each, and it makes a cheap package; but if you want to ship it, that is a different question. When a family wants 10 pounds I take them two pails, so as to have a uniform size package.

Mr. York—I should judge from the question that it asks about the retail trade. What package would you suggest for city retail trade?

Mr. Baldrige—For family use I don't see that you want anything different than for retail. I should rather have it in a 60-pound can and draw it as it is sold into any kind of package desired.

Pres. Miller—How many have had any experience with extracted honey for the retail trade? [Seven members had.]

Dr. Besse—Most of my shipping is at Columbus. I have a pretty good trade there. I attend the State fairs, and put the honey in 10-pound pails, in boxes, just the right height, and when the lid is down onto it, I mark it, "This side up with care." I bored holes through the end of the box and slip a rope through and tie the knot on the inside, and two men carry it and keep it right side up every time. That is the way I carry it to the grocery.

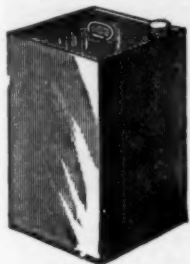
Mr. Wheeler—I have sold considerable honey to the retail trade, but I don't know what is the best thing to be used. I use a half-pint jar, open top, with rubber screw cap; that sells the best with me yet.

Mr. Thompson—I find nothing better than a 5-pound pail for the home trade.

[Continued next week.]

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 71.

Only 6 cts. per Pound in 4 Can Lots or Over.



Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7 cents per pound; 2 cans in one case, 6½ cents; 4 cans (2 cases) or more, 6 cents. The Cash must accompany each order.

A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polished on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equip't with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies. Please mention the American Bee Journal.

7A1f

BEE-KEEPERS:

We are making a strictly A No. 1 line of

Hives, Sections, Shipping-Cases, Frames,

etc., and are selling these goods on their merits.

We do not claim to sell at cost as we are not in business merely for what glory there may be attach to it.

We do claim that our goods are as fine as can be produced anywhere, and that our prices will be found fair and reasonable.

We are in a position to serve you promptly and satisfactorily, and we ask you to give us a chance to do so.

Why not write to us to-day for our **Free, Illustrated Catalog**? Or, better still, send us a list of what goods you will require for next season's use, and we shall take pleasure in quoting prices on same. Very truly yours,

G. B. LEWIS CO., WATERTOWN, WIS.

STARK Fruit Book

free, write quick,—"a marvel of exact orchard information"; fine colored plates of 21 fruits, 100 photos. **We PAY FREIGHT** cost LESS, yet better quality is impossible. **STARK BROS.** LOUISIANA, MO. Stark, Mo. Rockport, Ill. Dansville, N.Y.

No Trees

That Queen-Clipping Device Free!

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:

Send us just one new name for the American Bee Journal a year (with \$1.00), and we will mail you the Queen-Clipping Device **FREE** of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.



In the multitude of counsellors there is safety.—Prov. 11-14.

Drones—Their Advantages and Disadvantages.

Query 68.—1. Do you think the advantages gained from the elimination of drones to be as great as is generally claimed, or are they over-estimated?

2. Are there not in your opinion counterbalancing advantages derivable from their presence in the hive in numbers more approaching to what Nature proportions them, and which we may possibly have overlooked?

3. Given an equal number of colonies, with queens of one age, and all of equal strength, one set with combs of their own building, and hence no restraint as to drone-rearing, and the other set with only worker-combs, and hence incapacitated from rearing drones, what, in your estimation, would be the difference, approximately, in amount of surplus honey harvested?—S. A. D.

Prof. A. J. Cook—1. Yes. 2. No. 3. No difference.

E. France—Too long a question for this department.

Mrs. L. Harrison—1. Over-estimated. 2. Yes. 5. I don't know.

Emerson T. Abbott—1, 2 and 3. Ask somebody that knows. I do not.

W. G. Larrabee—I never experimented on this, but I hardly see the use of a lot of drones when they are not needed.

C. H. Dibbern—1. They are probably somewhat over-estimated. 2. Yes. 3. I can only guess, but I should prefer to "bet on" the one with worker-comb only.

Eugene Secor—1. That's one of the things I am not sure of. 2. Possibly, quite possibly. 3. Now my "sad" friend, you are getting the matter down too fine. Please excuse me.

R. L. Taylor—1. First clause, I am inclined to think so. 2. No. Who would follow Nature and keep as many roosters as hens? 3. Having no definite facts to go on, I could give nothing better than a guess.

J. A. Green—See query 66. While it would be hard to estimate the difference in pounds and ounces, I feel sure that four-fifths of the drones a colony will naturally rear are not only useless but detrimental to its interests.

G. M. Doolittle—1. Probably over-estimated. 2. Very doubtful. 3. You are going to the other extreme in keeping out all drone-comb. Six square inches of drone-comb to each colony puts them in a normal condition and secures the best results.

J. E. Pond—1. No, I do not. 2. In my opinion a normal colony contains some drones, my belief being that Nature is the best regulator we have. 3. The question is too broad for me to answer without some qualification. There should be an equalization of affairs. A few drones are necessary to the best working of the colony. When the season is advanced properly the drones will be

destroyed. With me, drones are reared in worker-comb when no drone-comb is supplied, which leads me to believe that drones should be allowed to some extent. As to difference in honey supply in the one case or the other, I know of no means of determination.

J. M. Hambaugh—I think the advantages as much or more than are claimed. 2. The advantages to be gained, except as fecundators, is infinitesimally small, in my opinion. 3. Possibly $1/5$ to $2/5$ more in favor of the colonies prepared with worker-combs.

Jas. A. Stone—1. I think so little of it that I have never practiced it. 2. However that may be, I have never thought the drones in the way till they became very perceptibly numerous through some fault with the queen. 3. I could not say, as I have never observed in that direction.

Dr. J. P. H. Brown—A hundred or two drones in a colony may be admissible; but more are a detriment, as they would consume the stores uselessly. In case your apiary consisted of one colony, more drones might be reared. Nature always looks toward the perpetuation of the species.

A. F. Brown—An excessive number of drones in a colony is certainly a detriment, and is at the expense of the honey crop. 3. With me the colonies having their excess of drone-comb removed and worker-comb in its place, will gain nearly, if not quite, double the yield of surplus the other would.

Rev. M. Mahin—1. I am inclined to think that the advantages are over-estimated. 2. I think that droves in moderate numbers are no detriment to a colony of bees. It is Nature's way. But the cost of production and maintenance is such that the numbers should not be great. 3. I cannot tell.

G. W. Demaree—1. It holds good in the supervisorship of man over the domestic animals under his charge, that intelligent control of number of drones in the hive is not an "extravagance," but rational treatment. 2. Let the apiarist use his intellect, and he may find out what is most profitable.

Dr. C. C. Miller—1. I don't know how much the advantages are esteemed, but I think they should be highly esteemed. 2. No, I don't believe anything of the kind. 3. The difference would be much the same as the difference in drones. The more drones the less honey. So there, you dark-continenter.

Wm. McEvoy—1. Yes, just as great. 2. No, positively no. 3. One hundred colonies which have been wintered over with nothing but nice worker-combs in every brood-chamber which have been made out of foundation will produce over one hundred dollars worth more honey in a good season than 100 colonies that have been allowed to build all the drone-combs they wisht, and reared all the drones they could.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

Sweet Clover

And Several Other Clover Seeds.

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Sweet Clover (white).....	.60	\$1.00	\$2.25	\$4.00
Alsike Clover.....	.70	1.25	3.00	5.75
White Clover.....	.80	1.40	3.00	5.00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover.....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.

CHICAGO, ILL.

Southern Home of the Honey-Bee

Is now ready for your orders for QUEENS of either 3 or 5 Banded Italians and Steel Gray Carniolans. More than 300 Tested Queens to begin with. Untested, either race, 75 cts. each; June and until October 50 cents each. Tested \$1.00 each. Good Breeders, \$2 each. Straight 5-Banded or "Faultless" Queens, \$5.00 each. Satisfaction guaranteed.

GEO. W. HUFSTEDLER,

Successor to Hufstедler Bros.,

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Muth's HONEY-EXTRACTOR Square Glass Jars.

Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc etc, Send for our new catalog.

Practical Hints will be mailed for 10c. in stamps. Apply to—

Chas. F. Muth & Son, Cincinnati, Ohio.

Please mention Bee Journal when writing.



OUR PRICES are worth looking at. We are making the new

Champion Chaff-Hive

with dovetailed body and supers, and a full line of other Supplies, and we are selling them CHEAP. A postal sent for a price-list may save you \$\$\$\$

H. H. SCHMIDT & Co.,

Box 187 SHEBOYGAN, WIS.

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IF YOU WANT THE

BEE-BOOK

That covers the whole Apicultural Field more completely than any other published, send \$1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keeper's Guide.

Liberal Discounts to the Trade.

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. A. VAN DEUSEN,

Sole Manufacturer, Sproat Brook Monticomey Co., N. Y.

Please mention Bee Journal when writing.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1898.

J. M. Jenkins, Wetumpka, Ala.

Please mention Bee Journal when writing.

GENERAL ITEMS

Short Crop Last Year.

My bees seem to be coming through all right on the summer stands. There was a rather short crop of honey last year.

Wm. A. SCOTT.

Cherokee Nation, Ind. T., Jan. 24.

Good Season for Bees.

I am lost without the American Bee Journal. The last was a good season for bees here. I had 13 colonies, and all but four were new swarms. I bought 6 from a neighbor at swarming-time, and from 11 colonies I extracted 1,000 pounds. The other two were weak and I just got them built up in time for winter. I think that I will devote more of my time to the bee-business, and less to my farming, as I believe it will pay better.

F. S. FRY.

Audrain Co., Mo.

Good Year for Sweetness.

The old Keystone State has been in for a good year of sweetness in 1897—the best since 1894. The best yield from one colony was 158 one-pound sections of honey. I had but two swarms from 18 colonies; one was from a four-year-old queen. She did not swarm for want of room. The other one was for want of room, for they were literally crowded out. I favor large hives and young, vigorous queens for non-swarmers and good honey-producers. I have increased to 24 colonies. I sold my honey at 15 cents per pound before the holidays.

Berks Co., Pa., Jan. 2.

C. C. YOST.

Honey Reported Broken in Shipment.

I got 1,567 well filled sections from 20 colonies, spring count, but I do not know how I am going to come out. I shipped 1,027 pounds, gross weight, to a Chicago commission firm Oct. 6; they receipted "in bad order," and I have not heard anything from them since. I do not see how it is, but it appears to me that shippers of honey are the worst imposed on of any shippers. I am afraid to hurry the firm, for if I do that they will claim they have to force sales, and take what they can get for it.

There are quite a number of bee-keepers in this town, and the two adjoining towns, but it is impossible to get them to subscribe for a bee-paper. I was trying to get one of my neighbor bee-keepers to subscribe for the American Bee Journal, and he said, "O, puddle Dick, I know all that is necessary to know about bees." The same man will have from five to ten colonies and not get enough honey for his family use. I shall subscribe for the "old reliable" Bee Journal as long as I can see to read it, and get the dollar.

DANIEL SMETHURST.

Crawford Co., Wis., Dec. 23.

Report for 1897—Honey-Dew.

I started in the season of 1897 with 39 colonies, increased to 54, and got 1,700 pounds of comb honey and 100 pounds of extracted. Bees are all in fine condition for winter, but there is a poor prospect for next year, as there is no white clover.

The first I ever saw of honey-dew was in 1852, in Iowa. I saw it in drops on hickory leaves; it looked clear and tasted sweet. This was in May or June. I have since noticed bees working in the fall on oak trees, and they filled up on it and the honey had the oak taste. I also saw them, in 1871, working on trees very strong, and I examined them and they were working on places on the young twigs that had been punctured by some insect, and the sap was issuing from the wound. If they stored any of this I did not notice it.

But 5 or 6 years ago we had the heaviest



\$300. for Six Potatoes!

We shall introduce this year for the first time the wonderful new **MORTGAGE LIFTER** **POTATO** and shall pay the above sum in prices for the best six potatoes grown from one seed potato. **THE EARLIEST POTATO IN THE WORLD.** Tested 4 years. It is white, of excellent quality and a **MAMMOTH YIELDER.** Be the first in your neighborhood to try it; next year you can sell it to others. Price this year, 50 cents for Single potato. **First in the Market Cabbage in the earliest to head; beat your neighbors by weeks.** Sure Head Cabbage, all head and sure to head; large size, good quality and good keeper. Single heads have weighed up to 60 lbs. **Climbing Cucumber**, entirely new—a perfect wonder. Climbs any trellis or support 6 to 8 feet high; prolific early fruiter. **Six Week's Turnip**, earliest grower, easy grown, **EARLIEST TOMATO IN THE WORLD**—greatest success for earliness, smoothness and quality. Has fruited in 50 days. Big Prizes Awarded for ripe tomatoes grown in least number of days. Instructions with seed. **One whole potato by mail (packed from frost) instructions for prizes and a packet each of the five early vegetables and catalog of "SEEDS THAT GROW" for 25c. Fairview Seed Farm, Box 28 Rose Hill, N.Y.**



Prices were never before so low—stock was never better. Everything in the **REID NURSERIES** is healthy, well rooted, fully up to grade. You will get exactly what you want at one-half price. Write for estimates, suggestions, illustrated catalogue. Try the **STAR STRAWBERRY** and **ELDORADO BLACKBERRY.**
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Is a 28-page monthly bee-journal published at Higginsville, Mo.—price 50 cts. a year. With the year of 1898, we begin the eighth volume, hence it is past the experimental stage. **R. B. Leahy** and **G. M. Doolittle**, editors. Some of the features of 1898 will be a continuation of "Wayside Fragments," by **Somnambulist**. "Experience and Its Lessons," by **R. C. Alkin**. This series of articles will be reviewed by Mr. Doolittle, which is practically giving his experience with its lessons. "Experience and Its Lessons," as reviewed, will be a gold-mine for beginners and advantageous to those more advanced in bee-culture. The **Somnambulist** articles are written in a pleasing style, as none but "Sommy" could write them. They are highly entertaining and instructive. **Dr. C. C. Miller** and other popular writers also contribute to its columns. The **PROGRESSIVE** is a popular journal at a popular price. Printed in the highest art, on beautiful paper. Fearless in its character, newsy in its contents, and artistic in its make-up. Remember the **PROGRESSIVE BEE-KEEPER** is but 50c. a year. The **PROGRESSIVE** and that "one only" book for beginners, the **Amateur Bee-Keeper**, by **Prof. J. W. Rouse**, both for 65c. A sample copy of the **PROGRESSIVE** for your name, and a beautiful, illustrated catalog of apian supplies for the asking. Address,

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CHAS. MONDENG, Mgr.
22 Atf Please mention Bee Journal when writing.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the **BEE JOURNAL.** Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

flow of honey-dew I ever saw, in fact, it was all the surplus of that year. My bees had been working on honey-dew for several days, but one morning my son came in and said he never saw honey-dew dropping off the trees before. I went out, and sure enough, everything was covered. I went to a small hickory tree that stood in the apiary, and the honey was dripping; it was as clear as any honey I had ever seen, and, oh, my, but the bees were carrying it in that day and the next. The honey was as clear and nice as any white clover or basswood I ever saw. The next day it was a little dark, and the next two days it was very dark, then it rained, and it was all gone. I sold \$150 worth that year, but sold none of the dark honey; I fed that back to the bees the next spring.

Now the trees, and especially hickory, spoken of had nothing over them for anything to fall from except the canopy of the heavens. It is still a puzzle to me where it comes from. I am satisfied that some comes from insects or sap of trees, but I never can think that the nice, clear stuff that I saw the bees gathering, and saw dripping from the trees, could ever come from insects.

The Bee Journal is good enough every year. I find some article that pays for it, and sometimes several.

R. R. STOKESBERRY.

Vermillion Co., Ind., Dec. 22.

Bees and Grapes—Fruit-Drying.

Noticing that the interesting paper on "Bees in Horticulture" (page 757, 1897) by Hon. R. L. Taylor, is to be put in type, I beg to inquire where copies may be procured. [When it appears in leaflet form, we will likely announce it.—Ed.]

Apocryphos of this subject, there is one other point which should not be ignored in the discussion. That is the annoyance and trouble caused by bees in fruit-drying. Those engaged in sun-curing fruit in California complain bitterly of this, the trays whereon are spread cut fruit being at times literally swarming with bees, yellow jackets, etc., sapping the juices from all fruits exposed.

This is quite within my own experience, as during the past season we were obliged to cover our trays with mosquito-netting to somewhat stop these depredations; of course, thereby much retarding the process of curing, if not injuring by interrupting the sun's rays and consequent dessication.

I think in my part of the country this is the subject of greater complaint than the sapping of a few broken grapes on the vine.

Prunes, to illustrate, are dipped in lye to crack the skin and hasten evaporation. This affords a splendid opening for the bees, but makes mighty poor honey. In a large drier it would be out of the question, I think, to cover thousands of trays.

Santa Clara Co., Calif. **GEO. H. STIFF.**

Foul Brood in New York State.

The warm and rainy weather has made our roads very muddy. Until yesterday morning the thermometer dropt to 10 degrees above zero, and through the day two inches of snow fell. My bees flew up to Nov. 20. Then all were put into the cellar.

Foul brood has been raging in some parts of our county the past season. When the season was about over Frank Boomhower of Gallupville was appointed Commissioner, and since that time he worked faithfully examining bees in and around Schoharie and Central Bridge, where foul brood was making bad work. Some yards of bees and hives I understand were all condemned, and had to be burned. Other yards that were examined, the hives that contained foul brood were marked, and had to be burned. Mr. Boomhower worked until late in the fall examining bees, doing his best to prevent the further spread of the dread disease. We bee-keepers are on the lookout, and are watching our colonies very cautiously. If I have foul brood in my beeyard I ought to be the first one to know it, and to take care of it at once, and so ought

every intelligent bee-keeper. But I am fearful of the careless and the don't-care-for-anybody-else bee-keepers who keep but a few colonies themselves.

The honey crop in this section has been about two-thirds of that of 1896. Farm crops were extra good—barns filled and stacks out-doors. Potatoes rotted, so there will be barely enough raised for home demand.

N. D. WEST.

Schoharie Co., N. Y., Dec. 21.

Report for Three Seasons.

I commenced, for the second time or period in my life, bee-keeping with one colony of black bees in a "cubical hive" in the spring of 1895; not a very auspicious year for beginning. In 1896 I purchased 10 colonies of bees in the standard frame style. By purchase and renting I started the season with 14 colonies, and ended with 32, and 1,400 pounds of honey, all but 100 pounds being comb honey, which I sold at 10 cents for the extracted, and the comb at 12½ and 15 cents per section, to my neighbors and friends. I wintered the bees on the summer stands, and every one of the 32 colonies. In 1897 I got over a ton of honey, all comb except 50 pounds, and sold as before, and could sell more if I had produced it. I increased to 57 colonies, and bought 11 in the new Falconer hive for \$22. I doubled up last year's increase in consequence of fall failure and light brood-nests, and now have 57 colonies of my own, and 4 rented from neighbors for increase.

JAMES H. KELSO.

Erie Co., N. Y., Dec. 17.

How One Bee-Keeper Manages.

Three years ago I commenced bee-keeping with one colony and the American Bee Journal. I have been fairly successful. I have kept down swarming by plenty of ventilation and room for storing honey. As soon as the honey-flow commences I put on a super; when nicely at work in that, I put on another one under it. If the bees begin to hang out on hot days, I raise the hive from the bottom, and sometimes move the cover forward a little in the hottest part of the day. The past summer I had a number of colonies that did not swarm, that stored 150 pounds of honey, and went into winter quarters strong in numbers and heavy in stores.

I consider wintering the greatest problem in this northern latitude. I have a very dry cellar under the house. I keep vegetables, etc., in there, too. I have part of it partitioned off dark, but well ventilated. After the first hard freeze in the fall I take off the honey-cloth, have a 1-inch hole inside of the cover, with wire screen on, then put them away. I put hives eight inches apart, one on top of the other, and leave them there till the spring is well advanced. If it should turn cold after taken out, I cover them up with blankets or anything handy, to keep the brood from chilling. I have strong colonies when the honey-flow commences, and rush them while it lasts.

I find the Bee Journal indispensable to the beginner. Long may it live.

Polk Co., Wis., Jan. 10. J. H. DOTY.

Bee-Keeping in Oregon.—Bee-Stings.

This is one of the greatest fruit countries in the world. There was 750,000 pounds of dried prunes raised here this year. We can grow anything but oranges and lemons. I think it will make a fine bee-country. A good many have a few colonies in old gums, but the dovetailed hive is coming to the front. The bees will store some honey every year; 100 pounds is about the best they can do, but 25 to 50 is what they do. The bees can live on the summer stands all winter; can fly some nearly every day when it doesn't rain. We are having lots of rain now. There will be some snow after about a week. There are some flowers all winter for the bees to work on.

I cut six bee-trees the past summer. One had 50 pounds in, another 70, one 10, and the rest about 2 pounds, so you see honey

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, **CASH**. No commission. Now if you want **cash, promptly**, for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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isn't very plenty. The bees can live on a very little; they never use up the honey in the brood-combs.

I am a tenderfoot at the business, but the first thing I did was to find something to kill the bee-stings. I take a small vial and put in some carbolic acid, one part water. When a bee stings I put some of this on, and it kills the sting or poison, and nine times out of ten it never swells. The hands will stand more than under the clothing.

This is a mountainous country, covered with timber and narrow valleys. It is wet six months and dry six, with some rain. There is no fall honey gathered.

I'm 48 years old, and never had eaten 20 pounds of honey up to two years ago; I never had seen a bee-paper, nor any bees to speak of. I lived on the prairie in Iowa, and 21 years in South Dakota. Why don't you send your honey to such places where they can't keep bees, where the people never see or taste honey?

I plant everything that will make flowers for the bees.

M. W. PRUNER.

Douglas Co., Oreg., Dec. 15.

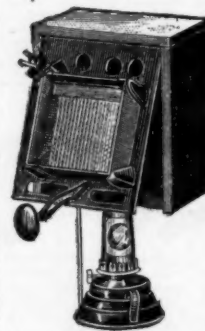
The Large Hive the Leader.

Replying to the question of Mr. L. M. Willis, on page 52, I'll take my best nut-cracker; but it seems to me it is only a hazel-nut he is giving me, and not one of those old, hard, horny black-walnuts.

That colony which did the best of all for him is evidently the best because it is pure Italian, and this is evidenced by its being so gentle. As to the hive, I do not believe that I ever held that the hive made the crop, but that it should be large enough to give the best, or rather the best queen, a chance to spread herself. I see that in this instance, that was just what Mr. Willis did, for he gave his 7-frame colony another brood-chamber of 8 frames above. That was really overdoing our methods, for we aim to give our bees only about the capacity of 12 Langstroth frames altogether, and in this instance the colony had 15. But he was fully repaid for his additional room, and I would suggest that he try it again on other colonies if they also prove prolific enough. And they don't swarm! That is our way. See?

Hancock Co., Ill.

C. P. DADANT.



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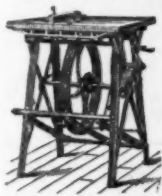
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Fairview Seed Farm.—We wish to direct the attention of our readers to the announcement of the Fairview Seed Farm, Rose Hill, New York, which makes its first appearance for the season of 1898 with this issue. It will be observed that the advertisement contains some extraordinary offers in the way of special collections of seeds and tubers. Their new Mortgage Lifter Potato is well spoken of, and should prove of special value to our readers. Every farmer or gardener should have an experimental plot where new varieties may be tested each season. Many of the best standard sorts of fruits, berries and vegetables have been given to the public in this way. Try this new collection; it does not cost much, and may result in much profit to you. Write then for a catalog, and say you saw their advertisement in the American Bee Journal.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Dec. 13.—Fancy white 11 to 12c; No. 1, 10c; fancy amber, 8 to 9c; No. 1, 7c; fancy dark 7c. Extracted, white, 5 to 6c; amber, 4 to 5c; dark, 4c. Beeswax, 26 to 27c.

The demand for comb honey is not satisfactory, and it can be bought at even lower prices than quoted, where it is not in the hands of regular dealers. There seems to be no outside demand. Extracted without special change. Beeswax is scarce.

Milwaukee, Wis., Jan. 24.—Fancy white 1-lbs., 11 to 12c; A No. 1, 11 to 11½c; No. 1, 10 to 11c; No. 2, 8 to 9c; No. 1 dark, 8 to 9c. Extracted, in barrels, kegs and cans, white, 5½ to 6c; dark, 5 to 5½c.

The supply of honey is good and the quality very nice as a general thing. The demand is not up to our desires, yet we are hopeful it will improve and all will be wanted at fair value. We feel like sustaining prices, and continue to quote as above.

Cleveland, Ohio, Dec. 15.—Fancy white, 12 to 12½c; No. 1, 11 to 12c; No. 1 amber, 9 to 10c. Extracted, white, 6 to 7c; amber, 4 to 5c. Beeswax, 22 to 25c.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c; No. 1, 10 to 11c; fancy amber, 9 to 10c; No. 1, 8 to 9c; fancy dark, 7 to 8c. Extracted, white, 5 to 6c; amber, 4 to 5c. Beeswax, 25 to 26c.

New York, N. Y., Dec. 22.—Fancy white 11 to 11½c; off grades, 9 to 10c; buckwheat and mixt, 6½ to 7c. Extracted, California white, 5 to 5½c; light amber, 4½ to 4¾c; white clover and basswood, 5 to 5½c; buckwheat, 4 to 4½c; Southern, 50c. a gallon. Beeswax is in good demand at 25 to 27c.

Our market remains quiet. Fancy grades of white comb are about cleaned up, and these would find sale on arrival at quotations. We have a large stock of buckwheat, mixt, and off grades of white, and, as the demand for these is very light, we cannot encourage further shipments for the near future. Extracted of all kinds is selling fairly well.

Minneapolis, Minn., Dec. 15.—Fancy white, 11 to 12c; No. 1, 10 to 11c; fancy amber, 10c; No. 1, 9½c; fancy dark 9 to 9½c; No. 1, 8 to 9c. Extracted, white, 5 to 6c; amber, 4 to 4½c; dark, 4c. Beeswax, 23c.

Market holds firm at above prices. Good demand for extracted. Wax is quiet but firm at 23c.

Albany, N. Y., Dec. 13.—Fancy white, 12 to 13c; No. 1, 11 to 12c; fancy amber, 8 to 9c; No. 1, 8c; fancy dark, 8c; No. 1, 7½ to 8c. Extracted, white, 5 to 6c; amber, 4½ to 5c. dark, 4 to 4½c.

There is an ample stock of comb on hand and selling freely at quotations. Extracted is not plentiful and from information received there is not much in the hands of producers.

Buffalo, N. Y., Jan. 14.—Strictly fancy 1-pound comb honey is more active at mostly 10c, occasionally 11c, but all other grades are dormant and have to be cut to almost any price to move them, ranging from 8c. down to 5c. Extracted is also very dull at 4 to 6c. We cannot recommend the shipping of honey here unless it is strictly fancy 1-pound sections.

There is no selling pressure of consequence on desirable lots of water white, either comb or extracted, such being held as a rule at full quotations. Amber grades are in greater supply than the demand, and market for this class presents an easy tone. Dark qualities are in poor request, despite low asking figures. Beeswax is firm at current quotations, with very little offering, either from first or second hands.

St. Louis, Mo., Jan. 17.—We quote honey nominal, but very little selling. Demand is light. White comb, 1-lbs., 10 1-2 to 12c; amber, 8 to 10c; dark, 5 to 7c; broken comb, 4 to 7c. Extracted, in cans, white, 5½ to 5 1-2c; light amber, 4½ to 5c; amber, 4½ to 4 1-2c; dark, 3 1-2 to 4c. Beeswax, 25 to 25 1-2c. To sell honey in lots above prices would probably have to be shaded a little.

Indianapolis, Ind., Jan. 15.—Fancy white, 11 to 13c; No. 1, 10 to 11c; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25 to 27c. Market appears to be well supplied and sales are rather slow for this time of the year. This is especially true of the amber and dark grades of comb honey. Beeswax is in good demand.

Kansas City, Mo., Jan. 20.—Fancy white, 10 to 11c; No. 1, 10c; amber, 9 to 10c; dark, 8 to 9c. Extracted, white, 5½ to 6c; amber, 5 to 5½c; dark, 4 to 4½c. Beeswax, 20 to 23c. The market is well supplied, and demand is light.

Boston, Mass., Jan. 18.—Fancy, in cartons, 12½ to 13c; in glass, 11 to 12c; A No. 1, 10 to 11c; No. 1, 9c; No. 2, 8c; No. 3, no sale. Beeswax, 27c.

The demand for honey is light on all grades, with a full supply. Pure beeswax is in good demand, but supply is light.

Philadelphia, Pa., Jan. 18.—Fancy white, 10c; No. 1, 9c; amber, 8c. Extracted, white, 5c; amber, 4c; dark, 3½c. Beeswax, 28c. Late arrivals of California honey have demoralized our market.

Cincinnati, Ohio, Jan. 17.—There is no change in prices, but rather a slow demand for all kinds of honey. We quote 10 to 13c, as the range of prices for best white comb honey, and 3 1-2 to 6c, for extracted, according to quality. Beeswax is in fair demand at 25 to 27c, for good to choice yellow.

San Francisco, Calif., Dec. 8.—White comb, 1-lbs., 7½ to 9½c; amber, 4 to 6c. Extracted, white, 4½ to 4¾c; light amber, 3½ to 3¾c; dark tulle, 1½ to 2¼c. Beeswax, fair to choice, 22 to 24c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

- Chicago, Ill.**
R. A. BURNETT & Co., 163 South Water Street.
New York, N. Y.
HILDRETH BROS. & SEIGLER,
120 & 122 W. Broadway.
Kansas City, Mo.
O. C. CLEMOMS & Co., 423 Walnut St.
Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.
Hamilton, Ill.
CHAS. DADANT & SON.
Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.
Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission.
St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St.
Minneapolis, Minn.
S. H. HALL & Co.
Milwaukee, Wis.
A. V. BISHOP & Co.
Boston, Mass.
BLAKE, SCOTT & LEE, 57 Chatham Street.
Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.
Indianapolis, Ind.
WALTER S. POWDER, 162 Massachusetts Ave.
Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.
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Basswood Honey FOR SALE

We have a limited number of barrels of very best Basswood Extracted Honey, weighing NET about 280 lbs. which we are offering at 6 cents per lb. f. o. b. Chicago. Do you want a barrel or so of it? If so, address, with the cash,

GEORGE W. YORK & CO.,
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WESTMINSTER, S. C. Jan. 10, 1898.

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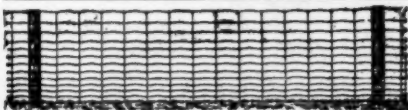


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